

# NASA TECH BRIEF



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## Fiberglass Honeycomb Elements Formed Quickly and Cheaply

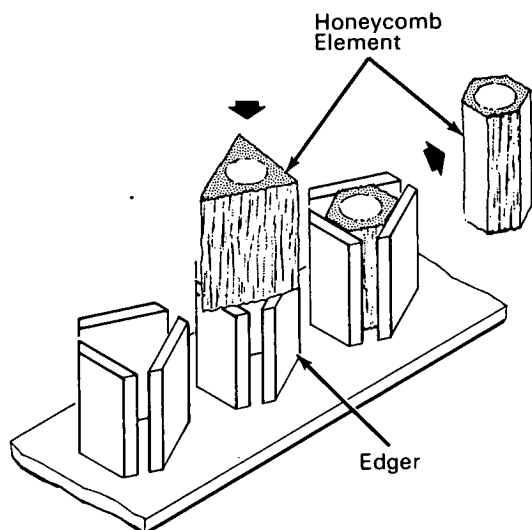


Figure 1. Shaping Sequence

### The problem:

To develop a fast, economical method for the fabrication of fiberglass honeycomb elements to be used as shock-absorbing devices. Prior methods involved filling the honeycomb with a low melting-point material, machining to the desired contour on a lathe, and then melting out the filler.

### The solution:

Triangular shapes are cut from a block of honeycomb material by means of a "cookie cutter" device, formed into hexagonal shapes and then crushed at each end by dies to form nesting ends.

### How it's done:

The triangular honeycomb elements are forced into three-bladed edges as shown in Figure 1, converting them into hexagonal shapes. Following this operation, the hexagonally shaped elements are placed in jigs,

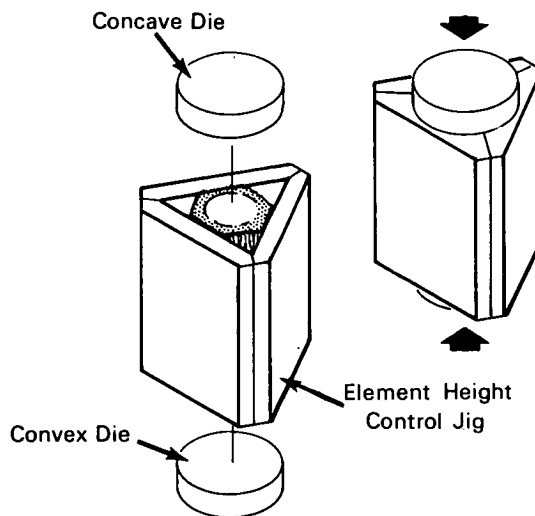


Figure 2. Stamping Operation Details

and, as shown in Figure 2, are stamped at their ends by concave and convex dies to bring them to the desired length and give them a nesting capability. After the stamping operation, the element ends are smoothed with sandpaper and removed from the jigs.

### Notes:

1. This method produces identical, double-contoured fiberglass honeycomb elements without the expense of costly tooling or skilled operators.
2. The following documentation may be obtained from:

Clearinghouse for Federal Scientific  
and Technical Information  
Springfield, Virginia 22151  
Single document price \$3.00  
(or microfiche \$0.65)

(continued overleaf)

Reference: NASA-CR-66301 (N67-21178),  
The Design and Development of Radio-  
Frequency Transparent Omnidirectional  
Energy Absorbing Element Systems

**Patent status:**

Inquiries about obtaining rights for the commercial  
use of this invention may be made to NASA, Code GP,  
Washington, D.C. 20546.

Source: R.H. Smith of  
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